

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A cross member for a motor vehicle, comprising:
an elongated, center structure having a first end, a mid portion, and a second end, said center structure being formed as a non-cast structure;
a first casting rigidly connected to said first end of said center structure; and
a second casting rigidly connected to said second end of said center structure,
each of said first and second castings having a respective integral attachment structure for attaching a respective~~being configured and arranged to be attached to a respective~~ motor vehicle element associated with a respective wheel of a motor vehicle,

each of said first and second ends of said center structure including a flange extending from said center structure and constructed and arranged to rigidify and strengthen said center structure while providing a surface that can be placed against a side surface of a respective casting of said first and second castings for attachment with said respective casting of said first and second castings.

2. (Original) A cross member according to claim 1, wherein said center structure is constructed as a one-piece, unitary structure.

3. (Currently Amended) A cross member according to claim 2, wherein said center structure comprises a metallic material that is selected from the ~~with a~~ group consisting of steel and aluminum.

4. (Original) A cross member according to claim 1, wherein said center structure has a U-shaped cross section.

5. (Original) A cross member according to claim 1, wherein each of said castings includes a flange and wherein each of said castings is rigidly connected to said center structure

by rigidly connecting said flange of each casting to said center structure.

6. (Original) A cross member according to claim 1, wherein each of said castings is rigidly connected to said center structure using fasteners.

7. (Original) A cross member according to claim 6, wherein said fasteners are rivets.

8. (Original) A cross member according to claim 7, wherein each casting is rigidly connected to said center structure using an adhesive.

9. (Original) A cross member according to claim 1, wherein each casting is rigidly connected to said center structure by welding.

10. (Original) A cross member according to claim 4, further comprising a cover mounted beneath and rigidly secured to said center structure to close the U-shaped cross-section of said center structure.

11. (Currently Amended) A frame for a motor vehicle, comprising:
first and second side frame members; and
a cross member coupled to and extending between said first and second side frame members, said cross member having
an elongated, center structure having a first end, a mid portion, and a second end, said center structure being formed as a one-piece, unitary, non-cast structure,
a first casting rigidly connected to said first end of said center structure, and
a second casting rigidly connected to said second end of said center structure, said first and second castings being attached to said first and second side frame members, respectively,
each of said first and second castings having a respective integral attachment structure for attaching a respective motor vehicle element associated with a respective wheel of a motor vehicle, and

each of said first and second ends of said center structure including a flange extending from said center structure and constructed and arranged to rigidify and strengthen said center structure while providing a surface that can be placed against a side surface of a respective casting of said first and second castings for attachment with said respective casting of said first and second castings.

12. (Cancelled)

13. (Currently Amended) A frame according to claim 12, wherein said center structure has a U-shaped cross section and further comprises a cover mounted beneath and rigidly secured to said center structure ~~and to each of said castings.~~

14. (Currently Amended) A method of forming a cross member for a motor vehicle, comprising:

forming an elongated, center structure by a method other than casting such that the center structure has a first end, a mid portion, and a second end;

forming first and second cast structures by casting, each cast structure having a respective integral attachment structure for attaching a respective motor vehicle element associated with a respective wheel of a motor vehicle ~~being configured and arranged to be attached to respective motor vehicle elements;~~ and

connecting the first and second cast structures to the first and second ends, respectively, of the center structure to form a rigid connection between the center structure and the first and second cast structures;

wherein each of the first and second ends of the center structure are formed to include a flange extending from the center structure and constructed and arranged to rigidify and strengthen the center structure while providing a surface that is placed against a side surface of a respective cast structure ~~easting~~ of the first and second cast structures ~~eastings~~ for the connection with the respective cast structure ~~easting~~ of the first and second cast structures ~~eastings~~.

15. (Original) A method according to claim 14, wherein the center structure is formed by stamping.

16. (Original) A method according to claim 14, wherein the connecting of the first and second cast structures to the center structure includes attaching respective flanges of the first and second cast structures to the center structure.

17. (Original) A method according to claim 16, wherein the connecting is carried out by welding.

18. (Original) A method according to claim 16, wherein the connecting is carried out by attaching fasteners between each of the cast structures and the center structure.

19. (Original) A method according to claim 14, wherein the center structure is formed as a one-piece, unitary structure.

20. (Currently Amended) A method of forming a motor vehicle frame, comprising:
forming an elongated, center structure by a method other than casting such that the center structure has a first end, a mid portion, and a second end;

forming first and second cast structures by casting, each cast structure having a respective integral attachment structure for attaching a respective motor vehicle element associated with a respective wheel of a motor vehicle, being configured and arranged to be attached to respective motor vehicle elements;

connecting the first and second cast structures to the first and second ends, respectively, of the center structure to form a rigid connection between the center structure and the first and second cast structures, wherein each of the first and second ends of the center structure are formed to include a flange extending from the center structure and constructed and arranged to rigidify and strengthen the center structure while providing a surface that is placed against a side surface of a respective cast structure easting of the first and second cast structures eastings for the connection with the respective cast structure easting of the first and second cast structures eastings; and

connecting the first cast structure to a first motor vehicle frame member; and

connecting the second cast structure to a second motor vehicle frame member.

21. (Currently Amended) A cross member according to claim 1, wherein each of said flanges of said first and second ends of said center structure forms part of a single, continuous flange that extends along the entire perimeter of said center structure.

22. (Currently Amended) A cross member according to claim 1, wherein each of said flanges of said first and second ends of said center structure extends transversely relative to said elongated center structure.

23. (Original) A frame according to claim 11, wherein each said flange of said first and second ends of said center structure form part of a single, continuous flange that extends along the entire perimeter of said center structure.

24. (Original) A frame according to claim 11, wherein each said flange of said first and second ends of said center structure extends transversely relative to said elongated center structure.

25. (Original) A method according to claim 14, wherein connecting each of the first and second cast structures to the first and second ends includes moving one of the first cast structure and the first end in a fore-aft/up-down slip plane prior to forming a rigid connection to assure dimensional accuracy.

26. (Original) A method according to claim 20, wherein connecting each of the first and second cast structures to the first and second ends includes moving one of the first cast structure and the first end in a fore-aft/up-down slip plane prior to forming a rigid connection to assure dimensional accuracy.

27. (New) A cross member according to claim 1, wherein the center structure includes a central opening to accommodate a portion of a vehicle power train extending through the central opening into a hollow interior of the center structure.

28. (New) A cross member according to claim 1, wherein each said integral attachment structure comprises an integral attachment structure for attaching a respective wheel control arm to the cross member.

29. (New) A cross member according to claim 28, in combination with first and second vehicle wheel control arms, each control arm being attached to a respective one of the integral attachment structures.

30. (New) A cross member according to claim 1, wherein each said integral attachment structure comprises an integral attachment structure for attaching a wheel suspension assembly to the cross member.

31. (New) A frame according to claim 11, wherein the center structure includes a central opening to accommodate a portion of a vehicle power train extending through the central opening into a hollow interior of the center structure.

32. (New) A frame according to claim 11, wherein each said integral attachment structure comprises an integral attachment structure for attaching a respective wheel control arm to the cross member..

33. (New) A frame according to claim 11, wherein each said integral attachment structure comprises an integral attachment structure for attaching a wheel suspension assembly to the cross member.

34. (New) A method according to claim 14, wherein forming the center structure comprises forming in the center structure a central opening to accommodate a portion of a vehicle power train extending through the central opening into a hollow portion of the center structure.

35. (New) A method according to claim 14, wherein each said integral attachment structure comprises an integral attachment structure for attaching a respective wheel control arm to the cross member.

36. (New) A method according to claim 14, wherein each said integral attachment structure comprises an integral attachment structure for attaching a wheel suspension assembly to the cross member.

37. (New) A method according to claim 20, wherein forming the center structure comprises forming in the center structure a central opening to accommodate a portion of a vehicle power train extending through the central opening into a hollow portion of the center structure.

38. (New) A method according to claim 20, wherein each said integral attachment structure comprises an integral attachment structure for attaching a respective wheel control arm to the cross member.

39. (New) A method according to claim 20, wherein each said integral attachment structure comprises an integral attachment structure for attaching a wheel suspension assembly to the cross member.